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July 29, 2002

RECEIVED

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W., Room TW-A325
Washington, D.C. 20554

JUL 29 2002

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARYRe: Power Line Communications Association (PLCA)
Comments on Amateur Radio Service NPRM, ET Docket 02-98

Dear Ms. Dortch:

Transmitted herewith for filing on behalf of Power Line Communications Association ("PLCA"), are the original and four copies of its Comments with respect to the Amateur Radio Service NPRM in ET Docket No. 02-98.

Also enclosed is an additional copy of this filing that we respectfully request be receipt-stamped and returned to the courier.

Should additional information be necessary in connection with this matter, kindly communicate directly with the undersigned.

Respectfully submitted,



James A. Stenger

JAS/mec
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PLCA

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**Before the
Federal Communications Commission
Washington, D.C. 20554**

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)	
)	
Amendment of Parts 2 and 97 of the)	ET Docket 02-98
Commission's Rules to Create a Low Frequency)	RM-9404
Allocation for the Amateur Radio Service)	
)	
Amendment of Parts 2 and 97 of the)	
Commission's Rules Regarding an Allocation of a)	RM-10209
Band near 5 MHz for the Amateur Radio Service)	
)	
Amendment of Parts 2 and 97 of the)	
Commission's Rules Concerning the Use of the)	RM-9949
2400-2402 MHz Band by the Amateur and)	
Amateur-Satellite Services)	

To: The Commission

COMMENTS OF THE POWER LINE COMMUNICATIONS ASSOCIATION

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July 29, 2002

SUMMARY

The Power Line Communications Association (the “PLCA”) is an association of electric utilities, service providers and vendors involved in the development and deployment of broadband over power lines. Using the existing electrical infrastructure, power line communications (“PLC”) will not only provide broadband Internet access, but add intelligent networking capabilities to the electric power distribution grid that will enhance its efficiency, reliability, and security. Thus, PLC will provide significant benefits to the public.

The Commission recently stated that its existing carrier current system (“CCS”) rules allow the deployment of PLC. At the same time, the Commission noted that it is exploring whether changes to the CCS rules are necessary or desirable to promote the deployment of broadband over power lines, to protect other users from interference from PLC, or to protect PLC operations from unwarranted service interruptions. Harmonization with international standards also is a Commission goal as it may promote broader PLC deployment by creating standards that enhance interoperability and economies of scale.

PLC operations include the high frequency range identified in the NPRM. The proposed new amateur radio secondary status allocation at 5 MHz thus would fall within the range of frequencies used for PLC. Since PLC testing is just getting underway in significant scale trials, it would be premature and ill-advised to create any new allocations in this band. As such, the PLCA is opposed to the new amateur allocation at 5 MHz at this time. The PLCA requests that the Commission either deny the allocation, or defer action until the Commission completes its review of the CCS rules.

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To: The Commission

COMMENTS OF THE POWER LINE COMMUNICATIONS ASSOCIATION

The Power Line Communications Association (the "PLCA") hereby submits its Comments in response to the Commission's Notice of Proposed Rulemaking and Order herein released on May 15, 2002 ("the NPRM"), and in support hereof respectfully shows as follows:

I. The Interest of the PLCA In This Proceeding.

The PLCA respectfully requests that the Commission deny the proposed new secondary allocation for amateur radio in the 5250-5400 kHz band or defer action pending Commission review of the carrier current system ("CCS"). Power line communications ("PLC") include the high frequency region identified in the NPRM.¹ Additional allocations, even secondary allocations in this frequency range, may impede the development of this new, facilities-based

¹ NPRM note 4.

broadband Internet service platform, and the related enhancements to the efficiency, reliability and security of the electric distribution system.

A. The PLCA.

The PLCA is a trade association representing the interests of electric utilities, service providers and vendors interested in offering PLC. The PLCA was formed on December 5, 2001, and held its first industry conference on December 11-12, 2001. The founding membership of the PLCA includes electric utilities that collectively serve over 11% of U.S. households.

B. The NPRM.

The NPRM proposes, *inter alia*, a new secondary amateur service allocation in the 5250-5400 kHz band to facilitate high frequency (“HF”) amateur service operations. As the Commission noted, the high frequency region of the spectrum is defined as frequency bands between 3 MHz and 30 MHz.² Because PLC operations include this frequency range, a proposed new allocation in this region is of concern to the PLCA. Because PLC would operate as an unlicensed service, even a secondary allocation could require the discontinuance of PLC operations in the event of interference to or from the proposed amateur service. Accordingly, the Commission needs to carefully weigh the potential impact of the proposed allocation on PLC.

The Commission may not have been apprised of the potential impact on PLC when the new secondary amateur allocation at 5 MHz was proposed. The portion of the NPRM that discusses this proposed allocation does not mention PLC or that any comments were received from utilities. By contrast, the portion of the NPRM that proposes the low frequency allocation at 135.7-137.8 kHz discusses the potential impact of that allocation on power line carrier systems

² NPRM, note 4.

that are authorized to operate in the frequency range of 9 to 490 kHz,³ and references comments received from utilities. Comments on the 5 MHz band proposal would not have been filed by the PLCA since the PLCA was not formed until December, 2001.

The Commission's proposal to adopt a new secondary allocation at 5 MHz was made "tentatively" and with a request for comments.⁴ Thus, the Commission indicates additional input is welcome. The PLCA hopes that these comments will provide the Commission with information sufficient to enable the Commission to evaluate the potential impact on PLC, with the caveat that PLC testing is just getting underway in larger scale trials and additional information may be forthcoming.

II. The Proposed New Secondary Allocation In The 5 MHz Band Would Adversely Affect PLC.

The proposed new secondary allocation for amateur service in the 5 MHz band is not large, only 150 kHz, 5250 to 5400 kHz. Nevertheless, the PLCA is compelled to oppose the allocation lest PLC become the victim of a "death by a thousand cuts." As will be shown, at least some PLC operators may "notch out" various bands on voluntary basis. The number of existing potential "notches," if augmented by this and potentially more new allocations in the future, threatens to undermine the viability of PLC. The PLCA thus urges the Commission to carefully consider the impact even of this relatively small bandwidth proposal.

³ *NPRM*, ¶ 4-28. See 47 C.F.R. § 15.113. Power line carrier systems are restricted to the lower frequency range and to use for utility internal communications, while PLC service under the CCS rules would operate in the high frequency range and provide broadband services to the public, in addition to additional internal utility applications.

⁴ *NPRM* ¶ 38.

A. PLC And The CCS Rules Were Addressed By The PLCA In Earlier Comments.

On January 10, 2002, the PLCA filed Comments in ET Docket 01-278, the Commission's biennial review of Part 15 and other parts of the Commission's Rules.⁵ In those Comments the PLCA sought to accomplish two objectives: 1) to introduce the Commission to PLC and its potential public interest benefits; and, 2) to review the history of the CCS rules to demonstrate that the CCS rules permit the roll-out of PLC now. The Comments demonstrated how PLC would create a new, facilities based broadband service provider, one that would provide last-mile connectivity and not use the existing copper loop. The Comments also explained that the efficiency, reliability and security of the nation's electric distribution system is integral to the nation's communications infrastructure - without electricity, most communications systems fail. Because PLC adds intelligent networking capabilities to the existing U.S. electric grid, it indirectly benefits other forms of communication besides PLC itself, all of which depend upon reliable and secure electric service.

In its review, the PLCA discussed all of the significant CCS rulemakings over the years and demonstrated that the Commission's regulations have contemplated the operation of CCS systems since the dawn of the Communications Act. Indeed, so-called bed-springs radio stations were one of the earliest forms of AM radio technology. CCS is not new. What is new, is the use of CCS to deliver broadband services over an existing third wire that is present in every home and business but is not yet being used to access the Internet.

⁵ *In the Matter of Review of Part 15 and other Parts of the Commission's Rules*, ET Docket 01-278, FCC 01-290, Oct. 15, 2001 ("Part 15 2000 Biennial Review").

B. The Commission Recognized The Benefits Of PLC And The Applicability of the CCS Rules In Its Recent Decision On Conducted Emissions.

In its recent Report and Order on conducted emissions (hereinafter "*Conducted Emissions Order*" or "R&O"),⁶ the Commission recognized the public interest benefits of PLC and the applicability of the CCS rules to PLC:

"We observe that there is substantial development under way of new broadband delivery systems that use power line communication (PLC) technologies." R&O para. 2.

"Pending the development of worldwide standards for these new technologies in home communication systems, and until we adopt new rules, our existing requirements for carrier current systems will continue to apply to these devices." R&O para. 2.

"A carrier current system is defined as a system, or part of a system, that transmits radio frequency energy by conduction over the electric power lines to a receiver also connected to the same power lines. *See* 47 C.F.R. § 15.3(f)." R&O, footnote 3.

"Carrier current systems are not subject to conducted emission limits except in the AM broadcast band between 535 and 1705 kHz, however, they are required to meet the general radiated emission limits. The standards for carrier current systems are contained in 47 C.F.R. §§ 15.107(c), 15.109(e), 15.207(c), 15.209(a) and 15.221." R&O, footnote 20.

The PLCA welcomes these preliminary Commission conclusions with respect to PLC and the CCS rules. The PLCA also recognizes that the Commission contemplates further proceedings with respect to PLC and the CCS rules.

C. Adopting A New Secondary Allocation In The 5 MHz Band May Harm PLC.

Given the Commission's plan to consider further review of the CCS rules, a new secondary allocation for amateur service in the frequency range contemplated for PLC would place the cart before the horse. PLCA urges the Commission to give further consideration to PLC and the CCS rules before adopting such an allocation and urges either dismissal without

⁶ *In the Matter of 1998 Biennial Review - Conducted Emissions Below 30 MHz for Equipment Regulated Under Parts 15 and 18 of the Commission's Rules*, Et Dkt No. 98-80, 2002 FCC LEXIS 2676, May 30, 2002.

prejudice of the proposal, or that action be deferred indefinitely until PLC and CCS issues are resolved.

Specifically, as noted in the PLCA Comments filed in the Part 15 2000 Biennial Review,⁷ under the CCS rules, carrier current systems operating below 30 MHz must comply with the radiated emissions limits in the general table for intentional radiators, even though the system is being operated as an unintentional radiator.⁸ Nevertheless, PLC operators may voluntarily limit their emissions within the bands specified in Section 15.205, sometimes referred to as “notching out” these bands. Each time the Commission adds a new protected band in this range, it creates another notch. Thus, while the proposed new secondary allocation for amateur service is only 150 kHz, it contributes to a potential “death by a thousand cuts” for PLC. The PLCA would rather see the Commission defer making new allocations in the range between 1.7 MHz and 30 MHz until it completes its review of the CCS rules.

Utilities have applied for and obtained experimental licenses to test PLC and are vigorously pursuing such testing. The regulatory and technical costs are significant. This investment shortly should yield benefits to the Commission by providing the specific information the Commission needs to assess PLC. While utilities are making this investment, they should be afforded the opportunity to complete such testing within a reasonable time frame. New allocations that may inhibit PLC should be dismissed or deferred.

⁷ Note 4, *supra*.

⁸ 47 C.F.R. § 15.109(e). The only exception to this general rule is that carrier current systems operating in the AM band (525 to 1705 kHz) can comply with the radiated emissions limits for “bed springs radio” systems, *i.e.* carrier current systems operated as intentional radiators, even if the system in fact is being operated as a conducted transmission system. *Id.*


III. Conclusion.

PLC offers the potential to speed the deployment of broadband Internet access to more Americans by utilizing and leveraging an existing third wire, to differentiate communications facilities and platforms including the critical last mile, and to improve the efficiency, reliability and security of the US electric distribution systems. The proposed new secondary allocation for amateur service in the 5 MHz band should be dismissed without prejudice or deferred, pending Commission review of the CCS rules.

Respectfully submitted,

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Dated: July 29, 2002.

CERTIFICATE OF SERVICE

I, Magdalene Copp, secretary of the law office of Troutman Sanders LLP, do hereby certify that a copy of the foregoing Comments of the Power Line Communications Association was sent via facsimile, this 29th day of July, 2002, to the following:

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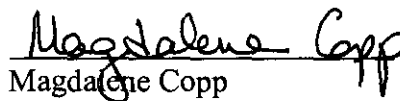
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